



DEPARTMENT OF THE AIR FORCE

59TH MEDICAL WING (AETC)
LACKLAND AIR FORCE BASE TEXAS

3 MAR 2016

MEMORANDUM FOR SGVT

ATTN: CAPT JASON CROSKREY

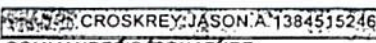
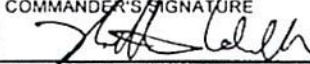
FROM: 59 MDW/SGVU

SUBJECT: Professional Presentation Approval

1. Your paper, entitled **Higher Order Aberrations after Femtosecond LASIK Flap Creation** presented at **American Academy of Ophthalmology Society of Military Ophthalmologists Annual Meeting: November 2015** with MDWI 41-108, and has been assigned local file #**16081**.
2. Pertinent biographic information (name of author(s), title, etc.) has been entered into our computer file. Please advise us (by phone or mail) that your presentation was given. At that time, we will need the date (month, day and year) along with the location of your presentation. It is important to update this information so that we can provide quality support for you, your department, and the Medical Center commander. This information is used to document the scholarly activities of our professional staff and students, which is an essential component of Wilford Hall Ambulatory Surgical Center (WHASC) internship and residency programs.
3. Please know that if you are a Graduate Health Sciences Education student and your department has told you they cannot fund your publication, the 59th Clinical Research Division may pay for your basic journal publishing charges (to include costs for tables and black and white photos). We cannot pay for reprints. If you are 59 MDW staff member, we can forward your request for funds to the designated wing POC.
4. Congratulations, and thank you for your efforts and time. Your contributions are vital to the medical mission. We look forward to assisting you in your future publication/presentation efforts.

Linda Steel-Goodwin

LINDA STEEL-GOODWIN, Col, USAF, BSC
Director, Clinical Investigations & Research Support

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS			
TO: Clinical Research Division/SGVU (59th CSPG/SGVU)		FROM: (Name/Rank/Office Symbol) Jason Croskrey Capt, 59TRS, SGVT	
		PROTOCOL NUMBER: FHW20140061H	
PROTOCOL TITLE A Retrospective Comparison of Higher Order Aberrations Measured by Pentacam in Eyes that Underwent Femtosecond LASIK Flap Creation with Femto LDV Z4 vs. iFS			
1. TITLE OF MATERIAL TO BE PUBLISHED OR PRESENTED Higher Order Aberrations After Femtosecond LASIK Flap Creation			
2. IS THIS MATERIAL CLASSIFIED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO			
3. IS THIS MATERIAL SUBJECT TO ANY LEGAL RESTRICTIONS FOR PUBLICATION OR PRESENTATION THROUGH A COLLABORATIVE RESEARCH AND DEVELOPMENT AGREEMENT (CRADA), MATERIAL TRANSFER AGREEMENT (MTA), INTELLECTUAL PROPERTY RIGHTS AGREEMENT, ETC.? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (NOTE: If the answer is 'YES' then attach a copy of the Agreement to the Publications/Presentations Request Form)			
4. MATERIAL IS FOR (Check appropriate box or boxes for approval with this request.) (ATTACH COPY OF MATERIAL TO BE PUBLISHED/PRESENTED)			
<input type="checkbox"/>	PUBLICATION/JOURNAL (List intended publication/journal)		
<input type="checkbox"/>	PUBLISHED ABSTRACT (List intended journal)		
<input type="checkbox"/>	POSTER (To be demonstrated at meeting/Name of Meeting, City, State, and Date of Meeting)		
<input checked="" type="checkbox"/>	PLATFORM PRESENTATION (At civilian institutions/Name of Meeting, State, and Date of Meeting) American Academy of Ophthalmology Society of Military Ophthalmologist Annual Meeting: November 2015		
<input type="checkbox"/>	OTHER (Describe; Name of Meeting, City, State, and Date of Meeting)		
POINT OF CONTACT			
5. WHO IS THE PRIMARY WHASC POINT OF CONTACT? (Last, First, M.I.) (Include email) Croskrey, Jason A jason.croskrey.4@us.af.mil			DUTY PHONE/PAGER No. 210-594-4080
AUTHORSHIP AND CO-AUTHOR(S) (List in the order they will appear in the manuscript)			
LAST NAME, FIRST NAME AND MI.	GRADE/RANK	SQUADRON/GROUP/OFFICE SYM	INSTITUTION (If not 59 MDW)
a. Primary/corresponding author Croskrey, Jason A	Capt	59TRS, SGVT	
b. Caldwell, Matthew	LtCol	59SGC, SGCEP	
c. Townley, J. Richard	Maj	59SGC, SGCEP	
d. Apsey, Douglas	Civ	59SGC, SGCEP	
e.			
f.			
g.			
h.			
i.			
j.			
I CERTIFY ANY HUMAN OR ANIMAL RESEARCH RELATED STUDIES WERE APPROVED AND PERFORMED IN STRICT ACCORDANCE WITH 32 CFR 219, AFMAN 40-401_IP AND 59 MDWI 41-108. I HAVE READ THE FINAL VERSION OF THE ATTACHED MATERIAL AND CERTIFY THAT IT IS AN ACCURATE MANUSCRIPT FOR PUBLICATION AND/OR PRESENTATION.			
AUTHOR'S PRINTED NAME/RANK/GRADE Jason Croskrey	AUTHOR'S SIGNATURE 		DATE 10 Sep 2015
COMMANDER'S PRINTED NAME, RANK MATTHEW CALDWELL, LT COL	COMMANDER'S SIGNATURE 		DATE 16 SEP 2015

PROCESSING OF PROFESSIONAL MEDICAL RESEARCH PUBLICATIONS/PRESENTATIONS		
1st INDORSEMENT (SGVU Use Only)		
TO: Clinical Research Division 59TH CSPG/SGVU <i>(Contact 292-7141 for email instructions)</i>	1. DATE RECEIVED <div style="font-size: 1.2em; font-family: cursive;">2/3/2016</div>	2. ASSIGNED PROCESSING REQUEST FILE NUMBER <div style="font-size: 1.2em; font-family: cursive;">16081</div>
3. DATE REVIEWED	4. DATE FORWARDED TO PA	
5. AUTHOR CONTACTED FOR RECOMMENDED OR NECESSARY CHANGES <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <i>(If yes, give date)</i> _____ <input type="checkbox"/> N/A		
6. COMMENTS <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED <div style="font-size: 1.1em; font-family: cursive;">The presentation is approved.</div>		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER <div style="font-family: cursive;">Rocky Calcote, PhD CLINICAL RESEARCH ADMINISTRATOR</div>	SIGNATURE OF REVIEWER <div style="font-family: cursive;">Rocky Calcote</div>	DATE <div style="font-family: cursive;">4 Feb 2016</div>
2ND INDORSEMENT (PA Use Only)		
TO: OFFICE OF PUBLIC AFFAIRS (PA)	1. DATE RECEIVED <div style="font-size: 1.1em;">22 Feb 2016</div>	2. DATE FORWARDED TO 59TH CSPG/SGVU <div style="font-size: 1.1em;">26 Feb 2016</div>
3. COMMENTS <input checked="" type="checkbox"/> APPROVED <i>(In compliance with security and policy review directives)</i> <input type="checkbox"/> DISAPPROVED <div style="font-size: 1.1em;">Content previously approved for a different conference (case 15167). Section 4, Platform Presentation, should list ARVO, May 1-5 2016 as conference attending.</div>		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER <div style="font-family: cursive;">Christopher Carwile, TSgt/E-6, NCOIC, PA</div>	SIGNATURE OF REVIEWER <div style="font-family: cursive;">CARWILE.CHRISTOPHER</div> <div style="font-family: cursive;">ER.STEWART.1280477</div> <div style="font-family: cursive;">229</div> <small>Digitally signed by CARWILE CHRISTOPHER STEWART 1280477229 DN: cn=US, ou=U.S. Government, ou=DOD, ou=PA, ou=USAF c=CARWILE CHRISTOPHER STEWART 1280477229 Date: 2016.02.26 10:06:23 -0800</small>	DATE <div style="font-size: 1.1em;">26 Feb 2016</div>
3RD INDORSEMENT (SGVU Use Only)		
TO: 59 CSPG/SGVU		1. DATE RECEIVED
2. SENIOR AUTHOR NOTIFIED BY PHONE OF APPROVAL OR DISAPPROVAL <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> COULD NOT BE REACHED <input type="checkbox"/> LEFT MESSAGE		
3. DATE WRITTEN NOTICE OF APPROVAL AND CLEARANCE MAILED TO AUTHOR: _____		
4. COMMENTS <input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED		
PRINTED NAME, RANK/GRADE, TITLE OF REVIEWER	SIGNATURE OF REVIEWER	DATE

Higher Order Aberrations After Femtosecond LASIK Flap Creation

Jason Croskrey MD, Matthew Caldwell MD, James Townley MD, Douglas Apsey MS, OD

Introduction: Higher order aberrations (HOA) are known to decrease visual quality and can naturally exist, or can be induced by procedures such as corneal refractive surgery. While studies have previously compared HOA in microkeratome vs. femtosecond corneal flap creation, no studies have compared two femtosecond lasers.

Purpose: To compare HOA induced by two femtosecond lasers used to create corneal flap for LASIK.

Methods: 14 eyes with corneal flaps created by the ZD4 laser for LASIK were compared to 14 eyes with corneal flaps created by the iFS laser. The two groups of eyes were similar in age, gender, spherical equivalent (SE), and treatment laser. The difference between the pre-operative and three month post-operative root mean squared (RMS) of HOA was used to compare the higher order aberrations. Paired t-tests were used to test difference between the RMS in the iFS and ZD4 eyes. The P-values were Bonferroni corrected.

Results: There was not a statistically significant difference in means of RMS values between eyes that had corneal flap creation with the ZD4 and iFS lasers ($p > 0.05$). The improvement of SE was similar between groups.

Conclusions: Based on our results the both ZD4 and iFS lasers do not induce significant changes in higher order aberrations after corneal flap creation for LASIK surgery.

Higher order aberrations after LASIK with femtosecond flap creation

Jason Croskrey, Matthew Caldwell, J. Richard Townley,
Douglas Apsey

Disclosure

no authors report financial disclosure or interests

this presentation does not represent the official
view of the United States Air Force or the
Department of Defense

Outline

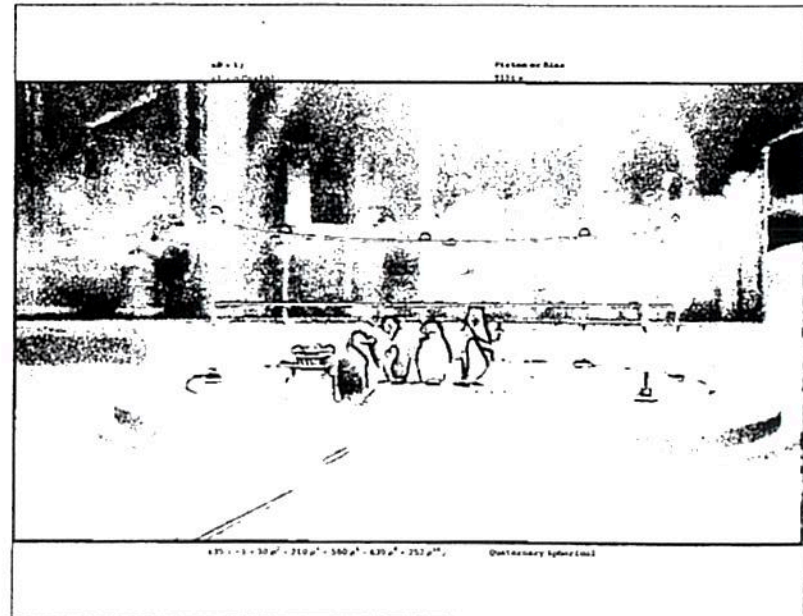
Background

Purpose

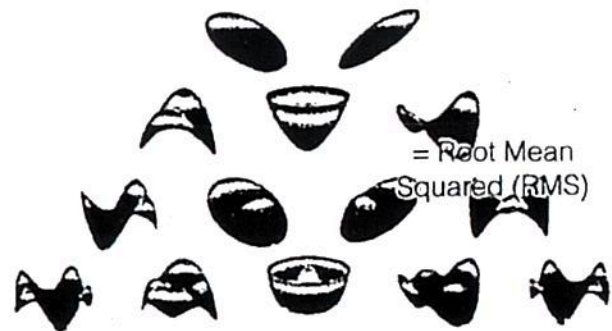
Methods/Demographics

Results

Conclusions/Limitations



Background



Background

15 myopic eyes;

observed HOA in
LASIK

pre RMS

0.344 post RMS

0.440

Background

18 eyes;

Intralase FS vs
microkeratome

Intralase FS
induced less
HOA

Background

47 eyes;

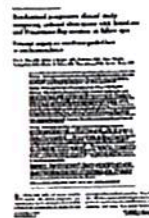
iFS vs

microkeratome

1yr f/u

increased
aberrations in
microkeratome
group

Background



115 porcine eyes;
LASIK flaps cut
with iFS or ZD4
similar flap
thickness and
roughness

Purpose



Ziemer ZD4

VS



AMO iFS

Methods

43 eyes had LASIK
with ZD4 flaps

Pts with
3mo I/u

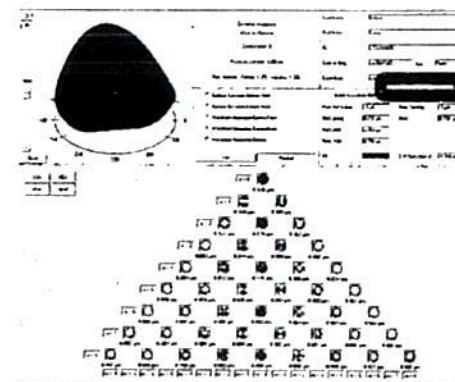
14 eyes

303 eyes had LASIK
with iFS flaps

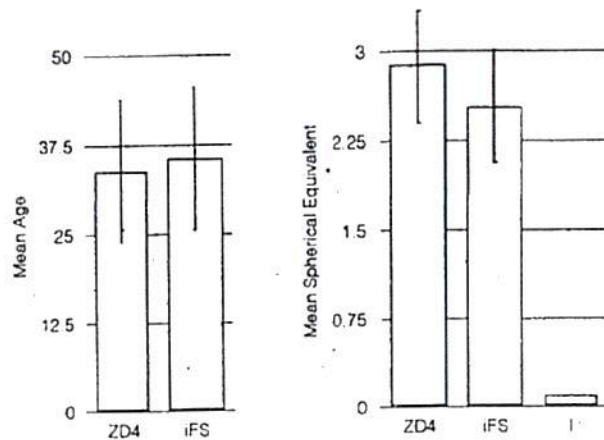
matched

14 eyes

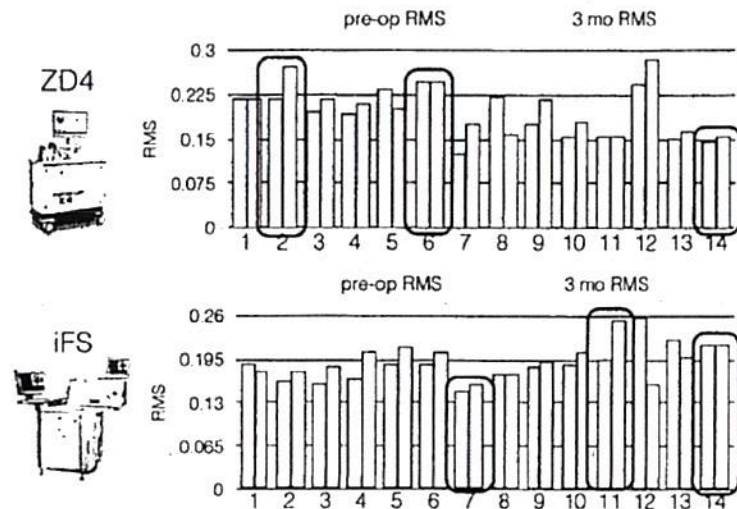
Methods



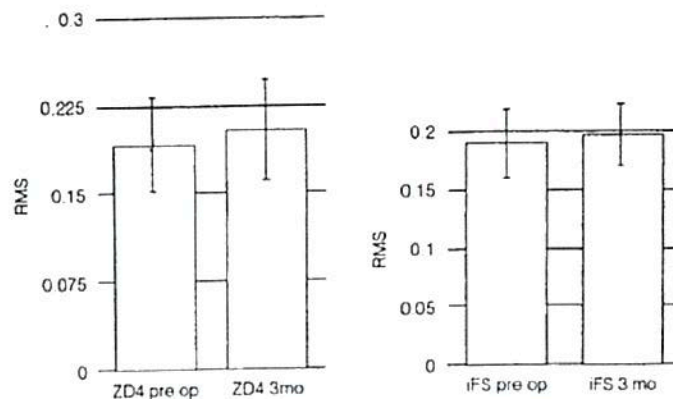
Demographics



Results



Results



Conclusions

No statistical difference in the change RMS pre and post-surgery between iFS and ZD4 eyes, ($P>0.05$)

No statistical difference in the change in spherical equivalent pre and post-surgery between iFS and ZD4 eyes, ($P>0.05$)

neither femtosecond lasers studied did not have a significant effect on HOAs

Limitations

Increasing numbers (n=28 in this study) may reveal a difference in post operative HOA

HOA analyzed independently may be statistically different between the two femtosecond lasers

The study was retrospective, a prospective study would be less likely to incorporate the possibility of selection bias

References

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- <http://www.kmsokdy.com/tz4.html>
- <http://www.emo-inc.com/products/refractive/lasik/lis-advanced-femtosecond-laser>



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

19 February 2016

MEMORANDUM FOR 59 MDW

ATTN: CAPT JASON CROSKREY

FROM: 502 ISG/JA

SUBJECT: Ethics Review for Presentation Approval Request (Croskrey)

1. A request for a legal review of a slide presentation titled "Higher Order Aberrations After Femtosecond LASIK Flap Creation" was submitted by Capt Croskrey. He plans to present the slides at the American Academy of Ophthalmology Society of Military Ophthalmologist Annual Meeting. This legal review is limited to the ethics issues regarding the presentation. The presentation slides included the required disclaimer discussed below. The disclaimer must also be included on the abstract. A Public Affairs review will be required if it has not already been obtained. There are no conflict of interest issues with presenting this research at this professional society meeting.

2. FACTS: Capt Croskrey plans to present the slide presentation titled "Higher Order Aberrations After Femtosecond LASIK Flap Creation" at the American Academy of Ophthalmology Society of Military Ophthalmologist Annual Meeting.

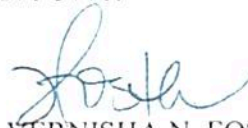
3. LAWS AND REGULATIONS: DoD 5500.07-R, Joint Ethics Regulation (JER), section 3-305 lays out rules governing "Teaching, Speaking and Writing." If the presentation will "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force, the presenter is required to include a disclaimer that states the "views presented are those of the speaker or author and do not necessarily represent the views of DoD or its Components."

4. ANALYSIS: The presentation does not "deal in significant part with any ongoing or announced policy, program or operation" of the Air Force and it does not appear that the military grades, titles and/or positions will be included. However, the authors included the required disclaimer that the views presented are those of the authors and do not necessarily represent the views of DoD or its Components on the slide presentation. The disclaimer also must be on the abstract. Although the disclaimer language included on the presentation is not verbatim from the JER, the language used is appropriate and clearly captures the intent of the language used in the JER. A Public Affairs review will be needed if it has not already been obtained. There are no apparent conflicts of interest that would prohibit the presentation.

5. CONCLUSIONS: The slide presentation for review included the disclaimer required by the JER. The disclaimer must be included on the abstract. There are no conflicts of interest.

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6. If you have any questions, please call me at 210-671-5771.



VERNISHA N. FOSTER, Capt
Assistant Staff Judge Advocate

I concur.



ARLENE R. CHRISTILLES
Chief, Civil Law

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